

June, 2008

BIOFUEL DEVELOPMENT IN WASHINGTON

Introduction

This listing provides a brief overview of the status of ethanol and biodiesel production and delivery in the state of Washington. It is a snapshot of known activities and is subject to revision due to a rapidly changing environment.

Ethanol

Activity surrounding the development of ethanol production plants in Washington State has slowed over the past year. At one point, as much as 666 million gallons per year (MGY) of potential ethanol production capacity was in the permitting/proposal stage. Since then, a number of these proposed facilities have either been cancelled or been put on hold. As of now, only one plant, US Ethanol, may come on line in late 2009.

During January, 2008, the Department of Licensing reported ethanol use in Washington at 6,514,415 gallons, or 4.84 percent of total gasoline fuel sales. For the month of February, 2008, ethanol sales were reported at 8,654,423 gallons, or 4.24 percent of total sales.

Proposed Ethanol Facilities

Location	Developer	Size	Status
Longview	US Ethanol/Northwest Renewable	55 MGY	Project undergoing redesign to improve economics- planned startup 4 th quarter 2009.
Finley	Columbia Renewable Energy	55 MGY	Delayed- planned start-up 2 nd Quarter 2010
Moses Lake	Liquafaction Corporation	Phased capacity @ 12 -36- 60 MGY	On-hold pending refinancing. Air permit completed for 12 MGY.
Ritzville/Keystone	Cilion/Khosla Ventures/ Premier Bio Energy	55 MGY	On-hold as company works through California plant start-up issues

Plymouth	Pacific Ethanol	55 MGY	On hold
Cherry Point	Vitality Fuels Corp	100 MGY	Feasibility study out 8/2008.
Vancouver-out	Rappaport Energy Consulting LLC	25 MGY	Planning-looking at alternative sites
Othello	Evergreen Biofuels	50 MGY	concept
Moses Lake	Global Ethanol	40-80 MGY	cancelled
Walla Walla	E85 Inc (tech provider VogelBusch)	100 MGY-corn	cancelled
Vancouver	Great Western Malting (tech provider Delta-T)	55 MGY – Barley feedstock	cancelled

Ethanol Fueling Locations

Location	Access
McChord Air Force Base	No public access at this time
Fort Lewis	No public access at this time
Pacific Pride, Richland	Card lock-public access
Richland Hanford	Private access
Vancouver (BPA Ross Complex)	For government vehicles only
Portside Conoco, Sunnyside	Public access
Seaview One Stop, Seaview	Public access
Airport Depot, Chehalis	Public access
Grocery Boys, Spokane	Public access
Pacific Pride, Bingen	Public access
US Ethanol, Marysville	Public access
US Ethanol, Longview	Public access

Note: Additional information on fueling facilities can be found at the National Ethanol Vehicle Coalition website @ <http://www.e85refueling.com/>

Feedstock- Potential Production: For 2007, 195,000 acres of corn were planted in the state. 120,000 acres of this were harvested, producing 25.2 million bushels. This is equivalent to approximately 70 million gallons of ethanol potential. For 2008, an estimated 170,000 of corn were planted in Washington.

An additional 225,000 acres of barley and 2.1 million acres of wheat were harvested in 2007, yielding 13.5 million bushels and 128.7 million bushels, respectively. Combined, these crops represent as much as 384 million gallons of ethanol potential. For 2008, an estimated 220,000 acres of barley and 2.3 million acres of wheat were planted in Washington. To date, none of these grains are being used as feedstocks for ethanol production.

There is also a wide array of non-traditional cellulosic feedstocks available in Washington. These feedstocks were inventoried by Washington State University in cooperation with the Department of Ecology and can be viewed in the report *“Biomass Inventory and Bioenergy Assessment-An Evaluation of Organic Material Resources*

for *Bioenergy Production in Washington State*". This report can be downloaded at <http://www.ecy.wa.gov/pubs/0507047.pdf>

Biodiesel

Currently, there are 7 biodiesel production facilities in Washington State. The combined capacity of these plants is 135 million gallons per year (MGY). Over the last year, a number of other biodiesel projects have been put on-hold or have been cancelled, with high feedstock costs cited as the major concern. The Department of Licensing reports that 1,652,831 gallons of biodiesel (or 0.70 % of total diesel sales) were sold in Washington during the 3 month period from January, 2008 through March, 2008.

Biodiesel Facilities

Location	Developer	Size	Status
Grays Harbor	Imperium Renewables	100 MGY	Operational August 2007. Supplies local markets, also export sales to Europe and marine/cruiseship markets.
Seattle	Seattle Biodiesel (aka Imperium Renewables)	5 MGY	Operational. Closed down commercial production – operate as R&D facility.
Creston	Columbia BioEnergy, LLC	8 -10 MGY	Operating below nameplate capacity. Varied feedstock- primarily canola. Collecting/processing glycerin for value added sales.
Ellensburg	Central Washington Biodiesel	<1 MGY	Operational- below 100,000 gallons current production. Transitioning from virgin oils to recycled oils/fats.
Arlington	Standard Biodiesel	8 MGY	Operational. Feedstock- recycled vegetable oil/fats. No longer producing biodiesel- shifting production to “renewable diesel”.
Burbank/Walla Walla	Gen-X	5 MGY	Operational. Feedstock- recycled vegetable oils/fats. Production currently @0.5 MGY. Expansion plans on hold.
Odessa	Inland Empire Oilseed- Fred Fleming, Green Star Products	8 MGY	Energy Freedom Program funding for joint crushing /biodiesel production plant. Biodiesel plant installed 4/2008, but not yet operational.

Port of Sunnyside	Natural Selection Farms-Ted Durfee	0.5 MGY	Energy Freedom Program funding for joint crushing /biodiesel production plant. Biodiesel plant construction on hold, focus on crushing operation.
Richland	TriCity & Olympia Railroad Company	1 MGY	Start-up Summer 2008. Pilot scale, could expand based on economics. Oils supplied by Con-Agra. Open to R&D.
Anacortes	Whole Energy	3 MGY	Project development on hold. Concentrating near term on wholesale. Currently moving about 150,000 gallons/month.
Port of Warden	Washington Biodiesel	35 MGY	Energy Freedom Program funding for joint crushing /biodiesel production plant. Biodiesel plant construction on-hold, focus on crushing operation.
Seattle	General Biodiesel	14 MGY	Relocated to Seattle from Mt Vernon. Started permit process.
Vancouver	Rappaport Energy Consulting LLC	NA	concept
Poulsbo	Olympic Biofuels	0.5 MGY	Closed production down- still distributing biodiesel.
Addy	Advanced Biodiesel Systems., Inc	NA	No activity
Toppenish	Agri Systems	NA	No activity
Chelan County	Robert Steward	NA	No activity
Spokane	Spokane Conservation District/Palouse Bio	NA	Energy Freedom Program funding for joint crushing /biodiesel production plant. Project cancelled.
Tacoma	Baker Commodities	NA	Project cancelled. Baker Commodities sold biodiesel development business to Tellurian Biodiesel- February 2008.
Bruce	Columbia BioEnergy/Air Energy	NA	Project cancelled
Tacoma	Sound Refining	NA	Project cancelled
Colfax	Losonoco	NA	Project cancelled
West Seattle	Planetary Fuels	NA	Project cancelled. New start-up, Planetary NRG, will focus on recovery and processing of low value, high FFA waste

			grease as feedstock material.
Burbank/Walla Walla	NorthWest BioFuels Inc	NA	Project cancelled

Note: There are a number of smaller biodiesel facilities (<10,000 gallons/yr) that may be operational. These include Beaver Creek Bioproducts of Twisp, GloCal Network Corporation of Seattle, and Biodiesel Works of Bellingham.

Oilseed Acreage: In 2006, approximately 9,500 acres of oilseed (canola) was under production in the region. During this period, Imperium Renewables contracted for 1 million gallons of canola oil from Natural Selection Farms, located in Sunnyside, Washington. The USDA Farm Service Agency reports that 13,675 acres of canola, rapeseed and mustard were planted in 2007, with administrative estimates increasing the numbers of acres under oilseed cultivation to approximately 18,000 acres. Cropping estimates for 2008 are not available at this time.

Crushers

Oilseed crushers can be measured in several ways (tons crushed per day, tons crushed per year or by gallons of oil produced per year). The preferred measure for this report is tons crushed per year. On-line or under development oilseed crushing capacity is approximately 402,000 tons per year.

Location	Developer	Size	Status
Spokane	Spokane County Conservation District/Palouse BioEnergy	Range from 25,500 to 340,000 tons per year (TPY). 25,000 TPY most likely.	Energy Freedom Fund project. Project cancelled
Port of Warden	Washington Biodiesel	350,000 TPY	Energy Freedom Fund project. Permitting for crusher underway. Biodiesel plant on-hold.
Odessa	PDA/Inland Empire Oilseeds LLC (2 co-ops, Rearden Seed and Fred Fleming)	44,200 TPY	Energy Freedom Program funding for joint crushing /biodiesel production plant. Biodiesel plant installed 4/2008.
Sunnyside	Port of Sunnyside/Natural Selections (Ted Durfee)	8,000 TPY- contract w/ Imperium for 1 MGY. delivered 6K gallons 1/30/07	Energy Freedom Program project. Operational. Biodiesel plant on-hold.
Colfax	NRCS/Whitman	255 TPY- portable	Operational

	Conservation District	crusher @3/4 tons per day	
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Biodiesel Fueling:

The National Biodiesel Board reports that there are 56 stations selling biodiesel in Washington State. Station information can be viewed at www.biodiesel.org/buyingbiodiesel/retailfuelingsites/showstate.asp?st=WA.

For more information, additions, corrections, and updates contact:

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